CANADIANA
JUL 23 1981

ENERGY RESOURCES CONSERVATION BOARD
Calgary, Alberta

Informational Letter
IL 81-17

TO: All Oil and Gas Operators

MINIMUM SURFACE CASING REQUIREMENTS

The Board revised section 6.080 of the Oil and Gas Conservation Regulations 29 May 1981 to include a refinement to the procedure used for determining the minimum amount of surface casing required for wildcat or exploratory wells. Details of the calculation procedure are set out in Guide G-8 "Surface Casing - Minimum Requirements and Exemptions" which also contains the minimum surface casing requirements for all other wells. The Guide also includes two tables that list exemptions from the standard minimum requirements. The Board intends to update these tables semi-annually.

The new regulations reflect the Board's concern that minimum surface casing requirements for wildcat or exploratory wells not be reduced until there is sufficient evidence of formation competency at a shallower depth. Normally, the surface casing requirement for the wells in any township will be determined using the procedure outlined in Guide G-8. However, after drilling the first two wells in a township and running surface casing as prescribed by Guide G-8, the Board may allow an operator to set casing on a trial basis at a depth less than the minimum, providing formation leak-off tests are conducted to measure formation competency and thereby determine whether a general reduction from the minimum requirements in a particular township is warranted. Based on the findings of the trial program, and if it appears an exemption is justified, an operator may file a formal application for reduced surface casing setting depth. The Board will expect the application to contain leak-off data from not less than three representative wells within the township, and such other hydrological, topographical or geological data that may be considered pertinent. Where it appears that formation competency and continuity at the lesser depth are satisfactory, reduced surface casing setting depth for that particular township will be approved. The approval will be limited to wells drilling to formations with pressures that are not likely to cause formation breakdown at the surface casing shoe.

Any questions respecting the modified minimum surface casing requirements or the procedure for obtaining an exemption may be directed to Mr. J. R. Nichol (261-8283) of the Board's Development Department.

Interim Directive No. ID-OG-76-1 is rescinded.

DATED at Calgary, Alberta on 12 June 1981.

V E Bohme

V. E. Bohme
Board Member

Attachments

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JUL

2 ENERGY RESOURCES CONSERVATION BOARD
Calgary, Alberta

3 Informational Letter
4 IL 81-18

TO: All Oil & Gas Operators

ANNUAL CRUDE OIL RESERVES HEARING

Informational Letter IL-OG 76-23 indicates that the Board is prepared to hold a hearing in October each year to review the current reserve estimate, recovery factor modifier (RFM) or maximum rate limitation (MRL) for any crude oil pool in Alberta. The hearing will be held only if a request is made by an interested party, including the Board staff.

If any operator wishes to have the oil reserves, RFM or MRL for any crude oil pool in Alberta reviewed at a public hearing in October 1981, the operator must advise the Board in writing by 31 August 1981, giving the name of the pool and an indication of the matters to be considered.

The Board staff is not proposing any pools for consideration at this hearing.

DATED at Calgary, Alberta on 7 July 1981.

J. A. Bray, P. Eng.
Manager
Oil Department

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JUL 23 1981

ENERGY RESOURCES CONSERVATION BOARD
Calgary, Alberta

Informational Letter
IL 81-19

TO: ALL OPERATORS IN THE MEDICINE RIVER FIELD

GAS RATE LIMITATION, CONCURRENT PRODUCTION AND POOL DEFINITION
MEDICINE RIVER OSTRACOD A AND OSTRACOD M POOLS

In a letter to all operators dated 17 September 1979, the Board advised operators in the Medicine River field that the Medicine River Ostracod M Pool, the Ostracod V Pool and the Ostracod zone underlying Section 12-39-3 W5M would be coalesced 1 October 1979. Further, the Board requested a review of the concurrent production approval in effect for the Ostracod M Pool as well as oil and gas production rates from the subject pool. Operators addressing these concerns were also asked to consider the possibility of communication between the Ostracod A Pool and the Ostracod M Pool. Pending receipt of submissions from interested parties addressing themselves to the aforementioned concerns, the Board imposed a gas rate restriction of 110 x 10^3 m^3 per day in the Medicine River Ostracod M Pool.

The Board notes that the gas rate restriction has been severely exceeded during the past 16 months and is disappointed with the lack of co-operation amongst the operators in adhering to the prescribed limitation. By letter dated 2 February 1980, the Board was notified that an enhanced recovery report including a review of the continuance of the concurrent production approval was to be completed by 1 November 1980. The Board was subsequently advised that the study would be delayed until April 1981. To date, the Board has not received either the enhanced recovery study nor any study regarding concerns previously indicated in this letter. Therefore, unless these studies are received by 1 September 1981, the Board will initiate proceedings to shut-in the pool.

DATED at Calgary, Alberta on 8 July 1981.

ENERGY RESOURCES CONSERVATION BOARD

N. Strom
Board Member

CANADIANA
JUL 23 1981

ENERGY RESOURCES CONSERVATION BOARD
Calgary, Alberta

Informational Letter
IL 81-20

TO: All Operators in Mitsue Field

MITSUE GILWOOD A POOL
PRIMARY AREAS

The Board notes that, although a major portion of the Mitsue Gilwood A Pool was placed under water flood several years ago in order to ensure sound resource conservation, a significant number of wells in the pool are still within areas classified as primary depletion, generally an inferior recovery process. As a result, the Board believes that the feasibility of enhanced recovery schemes for these remaining wells should be investigated. There are 42 wells in the primary recovery category shown in the attached tabulation of which some 18 wells are active producers. Operators of these wells, either jointly or separately are requested to report by 31 December 1981 on the feasibility of commencing enhanced recovery in the near future.

In addition, and notwithstanding the exemptions from the provisions of Board Order No. GC 59 granted previously by the Board for solution gas produced from some of the wells and batteries in the field, the Board believes that there may be potential for facility consolidation, and thus, possible enhancement of solution gas conservation economics. On the other hand, further pressure maintenance implemented in the pool may have the effect of reducing solution gas production rates, and thereby possibly having a negative economic effect on oil field conservation. In this light, the Board believes that enhanced recovery feasibility studies should include a discussion of the impact on oil field gas conservation feasibility.

At least one-third of the active wells in the primary depletion area of the pool have producing gas-oil ratios (GOR) in excess of the pool's GOR penalty base indicating a need for pressure maintenance. With inflated allowable allocations, the GOR penalty base[1] provides little control over excess gas production. This inevitably leads to poor conservation because of excessive depletion of reservoir energy. The Board expects that the cumulating voidage from primary producing wells outside the enhanced recovery project boundary would have a gradually detrimental effect on the effecient depletion of the pool. To at least dampen such adverse effects, the Board considers it appropriate to impose an MRL on wells in the primary depletion areas.

Therefore, effective 1 August 1981, an MRL of 10 $m^3/d/$ well will be applied to primary areas in the Mitsue Gilwood A Pool. Applications for a change in the assigned primary MRL must be supported by studies and recommendations respecting enhanced oil recovery, gas conservation and any alternative maximum rate limitation.

DATED at Calgary, Alberta, on 9 July 1981.

N Strom

N. Strom
Board Member

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[1] The project area of the pool has GOR limitations on the producing wells.

PRIMARY WELLS - MITSUE GILWOOD A POOL

UNIQUE WELL IDENTIFIER	WELL NAME
00/08-26-068-03W5/0	Tricent Et Al Mitsue 8-26-68-3
00/14-26-068-03W5/0	CDCOG Mitsue 14-26-68-3
00/02-02-069-03W5/0	CDCOG Et Al Mitsue 2-2-69-3
00/06-02-069-03W5/0	CDCOG Et Al Mitsue 6-2-69-3
00/15-10-069-03W5/0	Star Et Al Mitsue 15-10-69-3
00/08-16-069-03W5/0	Brinco Et Al Mitsue 8-16-69-3
00/04-27-069-03W5/0	Star Et Al Mitsue 4-27-69-3
00/04-34-069-03W5/0	Home Alminex Mitsue 4-34-69-3
00/10-34-069-03W5/0	Home Almx Mitsue 10-34-69-3
00/04-03-070-03W5/0	Cdn-Sup Mitsue 4-3-70-3
00/02-06-070-03W5/0	Decalta Pacific Mitsue 2-6-70-3
00/12-20-070-03W5/0	Fina Mitsue 12-20-70-3
00/02-04-071-03W5/0	Guyer Kline Chevron Mitsue 2-4-71-3
00/12-29-071-03W5/0	Whitehall Et Al Mitsue 12-29-71-3
00/14-15-071-04W5/0	Mitsue MGSU # 1 14-15-71-4
00/02-27-071-04W5/0	Home Alminex Mitsue 2-27-71-4
00/04-35-071-05W5/0	Chevron SOBC Mitsue 4-35-71-5
00/04-06-072-03W5/0	Chevron SOBC Mitsue 4-6-72-3
00/02-12-072-04W5/0	Mobil Mitsue 2-12-72-4
00/04-12-072-04W5/0	Mobil SOBC Mitsue 4-12-72-4
00/03-26-072-04W5/0	Huber Abid Mitsue 3-26-72-4
00/09-26-072-04W5/0	BAOH Et Al Mitsue 9-26-72-4
00/10-35-072-04W5/0	Texaco Mitsue 10-35-72-4
00/04-05-073-04W5/0	Chevron MGSU # 1 Mitsue 4-5-73-4
00/10-17-073-04W5/0	Tricent Et Al Mitsue 10-17-73-4
00/10-20-073-04W5/0	Suncor Mitsue 10-20-73-4

PRIMARY WELLS - MITSUE GILWOOD A POOL (cont'd.)

UNIQUE WELL IDENTIFIER	WELL NAME
00/04-27-073-04W5/0	IOE Mitsue 4-27GL-73-4
00/12-01-073-05W5/0	IOE Mitsue 12-1G1-73-5
00/12-23-073-05W5/0	Ruth Et Al Mitsue 12-23-73-5
00/02-30-073-05W5/0	IOE Mitsue 2-30GL-73-5
00/12-33-073-05W5/0	IOE Mitsue 12-33GI-73-5
00/04-35-073-05W5/0	IOE Mitsue 4-35-73-5
00/02-05-074-05W5/0	IOE Mitsue 2-5GL-74-5
00/02-07-074-05W5/0	IOE Mitsue 2-7G1-74-5
00/04-15-074-05W5/0	Turbo Et Al Mitsue 4-15-74-5
00/02-17-074-05W5/0	Huber Et Al Mitsue 2-17-74-5
00/02-19-074-05W5/0	Guyer Mitsue 2-19-74-5
00/12-01-074-06W5/0	IOE Mitsue 12-1G1-74-6
00/02-14-074-06W5/0	IOE Mitsue 2-14-74-6
00/12-24-074-06W5/0	IOE Mitsue 12-24-74-6
00/04-25-074-06W5/0	Pethelan Et Al Mitsue 4-25-74-6
00/11-27-074-06W5/0	Zeus Et Al Mitsue 11-27-74-6

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Calgary Alberta

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Informational Letter
IL 81-21

TO: All Oil and Gas Operators,
Canadian Petroleum Association,
Independent Petroleum Association of Canada,
and Certain Others

STANDARD UNIT OF MEASUREMENT FOR ETHANE

In Informational Letter IL 79-4, the Board indicated that since Sector 4.02 (Petroleum and Natural Gas Industry and Services) of Metric Commission of Canada had adopted the kilogram mass unit as the standard unit of measurement for ethane, the Board would require all such data in kilograms. However, much of the industry and government are using the cubic metre of liquid as the unit of measurement for ethane, mainly because the cubic metre is used as the standard unit of measurement for propane, butanes, pentanes plus, and most other hydrocarbons. Consequently, for simplicity and in order to maintain consistency with others, the Board has decided to adopt the cubic metre of liquid as the standard unit of measurement for ethane.

While the Board has historically used conversion factors for pure ethane, the National Energy Board and others have adopted conversion factors derived on the basis of an average industrial specification ethane. Since the factors differ only slightly and having regard for measurement inaccuracies, the Board has decided to adopt conversion factors having an accuracy of only three significant figures which it will apply to both pure and industrial specification ethane.

The Board has adopted the following frequently-used conversion factors which yield cubic metres of ethane in the liquid phase at equilibrium pressure and 15°C:

1 barrel (equilibrium pressure and 60°F) = $0.158\ m^3$

1 imperial gallon (equilibrium pressure and 60°F) = $4.52 \times 10^{-3}\ m^3$

1 cubic foot of ethane gas (14.65 psia and 60°F) = $100 \times 10^{-6}\ m^3$

1 kilogram (weight in vacuum) = $2.79 \times 10^{-3}\ m^3$

1 cubic metre of ethane gas (101.325 kilopascals and 15°C) = $3.55 \times 10^{-3}\ m^3$

The Board has also adopted 18.5×10^9 joules as the higher heating value of one cubic metre of ethane liquid at equilibrium pressure and 15°C.

While these factors are adequate for purposes of converting historical data, the Board expects that for custody transfer operations, detailed engineering calculations or other work requiring a higher level of accuracy, factors may have to be developed which more accurately reflect specific product composition.

Questions respecting the above matters may be directed to Mr. H. G. Halladay of the Board's Gas Department at 261-8291.

Dated at Calgary, Alberta on the 15th day of July 1981.

G J DeSorcy

G. J. DeSorcy
Vice Chairman